

**Abstract**

An electrochemiluminescence cell comprising an electrode capable of inducing an  
5 electrochemiluminescence-active species to electrochemiluminesce. The electrode is  
preferably made of rhodium, iridium or an alloy of platinum, rhodium or iridium alloyed  
with an alloy material comprising a transition element. The electrode may be used as  
counter electrode and/or as a working electrode in the electrochemiluminescence cell.  
The cell preferably includes a counter electrode and a support attached to the counter  
10 electrode. The support comprises a transparent portion in optical registration with the  
working electrode. The counter electrode may include one or more field extending  
elements interposed between the transparent portion and the working electrode. The field  
extending element is preferably a ladder or a grid.